

Wet Prairie – Jackson Bottom Wetlands

in Hillsboro, within Jackson Bottom Wetlands



DURING

Farming services were used (top), including licensed pesticide application (middle). Burning required a permit (bottom)

Jackson Bottom Wetland preserve is 650 acres, 80 percent of which has been delineated as wetlands. Most of that area was reed canary grass before enhancement projects began in 1979. Past enhancement projects focused on shallow marshes, but historical evidence indicates that the bottom land areas in the Tualatin basin were composed of wet prairie systems as well. This project was to restore a wet prairie ecosystem with *Deschampsia* as the dominant native grass on a five-acre section.

In order to insure the highest success rate, a four-acre area of the preserve was chosen because of its annual flooding and drying regime, minimal reed canary grass seed source from prevailing winds and public viewing opportunities were available. There was need for a variety of reed canary grass control measures such as manual removal, prescribed burning and herbicide treatment. This eradication step needed to be implemented before planting of native grasses and forbs.

Three test plots were set up of one acre each. Each plot had different treatments (see work plan). Project team meetings were held on site to discuss project design and work scope and sequencing. Baseline soil nutrient data had been collected and was used in determining the success of nutrient exhaustion techniques planned before the establishment of the native plant cover. A local small grain farmer was contacted about farming services, and another local farm service company with license to do commercial pesticide applications applied to do the herbicide applications. There was a volunteer wet prairie seed collection field trip to gather materials for the initial plantings. Permits were acquired from the Hillsboro Fire Department to do a prescribed burning.

Benefits

Education is the highest priority at Jackson Bottom Wetlands Preserve. Within the research community and the work done by specific researchers, the success of the “Wet Prairie Restoration Project” could lead to new methods for preserving and restoring wet prairie ecosystems. The information learned will be available through



AFTER

Wetland habitat with native plantings

Timeline and tasks

September -	
October 1992	Initial site preparation
Winter 1993	Landscape planning and design; volunteer hardwood cutting collection; planning for acquisition of herbaceous plant materials
Summer – fall 1993	Baseline soil and vegetation characterization of site
September 1993	Volunteer wet prairie seed collection; fallowing and continued site prep
October 1993	Native seed planting
Winter 1993-94	Planting of native cutting
Fall 1993 -1998	5-year Jackson Bottom continuous monitoring
1998	5-year monitoring completed
Spring 1998	Preparation of report outlining results of projects
Ongoing	Public education about restoration projects

the Oregon Graduate Institute research/education programs and shared with other Oregon and Northwest schools and universities.

The Friends of Jackson Bottom, along with the Jackson Bottom Wetlands coordinator, designed a citizen monitoring program, providing citizen volunteers involvement strategies and techniques in wetlands monitoring and data collection. In addition to designing a standardized monitoring program, tours for the general public are held periodically. Interpretative signs at the view site describe wetland restoration projects and explain the values and importance of diverse wetland ecosystems, covering the Metropolitan Greenspaces projects.

Helpful hints – what worked, what didn't

- Pull together a group of experts to help make informed decisions and design.
- Have lots of partners.
- There is currently an emphasis to restore sites to historical levels. Impacts outside the project area may affect this goal and make it an unrealistic expectation.
- Repopulate, where possible, with genetic and/or authentic strains of plants.
- When designing a project, be aware that there are many factors that are not well understood affecting the interface zone of upland and wetlands.
- Involve the community, both adults and children, to ensure ownership and stewardship of the site.

Treatments

Date	Plot A	Plot B	Plot C
Fall 1992	mow area	same as A	same as A
Spring 1993	define study plot	same as A	same as A
June - July 1993	*2 herbicide applications	same as A	plow and disc
August 1993	burn then fallow	#fallowing monthly	same as B
September 1993	plant for winter	same as A	same as A
	erosion control		
Spring 1994	monitor site	same as A	same as A
Summer 1994	spot herbicide spray as	same as A	#fallowing
	needed on reed canary grass		
	throughput area		
Fall 1994	field prep/seed deschampsia	same as A	same as A
Spring 1995	evaluation of all plots	same as A	same as A
Summer 1995	prepare operations and	same as A	same as A
	maintenance manual		
	for each plot		

*Herbicide application used Rodeo mixed with an aquatic surfactant and a small dose of fertilizer

Fallowing included repeated discing two times per month from June through September 1993

- Provide lots of flexibility in the timeline; it has boundaries not set by humans, such as floods, erosion, etc.

Budget

Proposed – \$21,275

Actual – \$31,225

Metro/US Fish and Wildlife grant award – \$10,800

Partners

City of Hillsboro

Hillsboro Chamber of Commerce

Unified Sewage Agency

The Friends of Jackson Bottom

Jackson Bottom Steering Committee

Oregon Graduate Institute

Oregon Department of Fish and Wildlife

Portland Audubon Society

Portland Bureau of Environmental Services

Washington County Education Service District

Toady's Nursery

Mark Unger Farms

OSU Seed Laboratory

Hillsboro Fire Department

Private Industry Council

Hillsboro Girl Scouts

245 volunteers from Friends of Jackson Bottom, Pacific University, Hillsboro Girl Scouts

Contact

Pat Willis, city of Hillsboro, 681-6206